This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-5 (canceled).

Claim 6 (previously presented): An antenna structure having a substantially flat form with a ground connection, which is designed for use for at least two frequency bands, comprising:

two transmitter/receiver antenna branches, which are electrically conductively connected to a foot area, wherein the foot area surrounds the ground connection;

two RF supply connections that are arranged at a distance from one another, provided in the foot area, between which the ground connection is provided, wherein the two transmitter/receiver antenna branches of the antenna structure are designed such that the two transmitter/receiver antenna branches are associated with overlapping frequency bands; and

an excitation circuit with an RF supply line, which branches to the two RF supply connections.

Claim 7 (previously presented): The antenna structure as claimed in claim 6, wherein the antenna structure is a planar, inverted F structure.

Claim 8 (previously presented): The antenna structure as claimed in claim 6, wherein the two transmitter/receiver antenna branches of the antenna structure are each designed in a meandering shape.

Claim 9 (previously presented): The antenna structure as claimed in claim 8, wherein the two transmitter/receiver antenna branches are in the form of a double meander.

Claim 10 (previously presented): The antenna structure as claimed in claim 8, wherein the distance between the two meandering transmitter/receiver antenna branches is in the range between 0.5 and 10 mm.